

Designing Conceptual Programs



Workshop Goals

- To develop teachers' self-awareness of a conceptual programming model that uncovers the learning
- To identify key features of quality programming
- To identify and share effective approaches to programming


Considerations

Quality learning enables students to:


- Engage
- Examine and explore
- Enrich and extend
- Create and construct
- Apply
- Communicate and share
- Reflect and evaluate



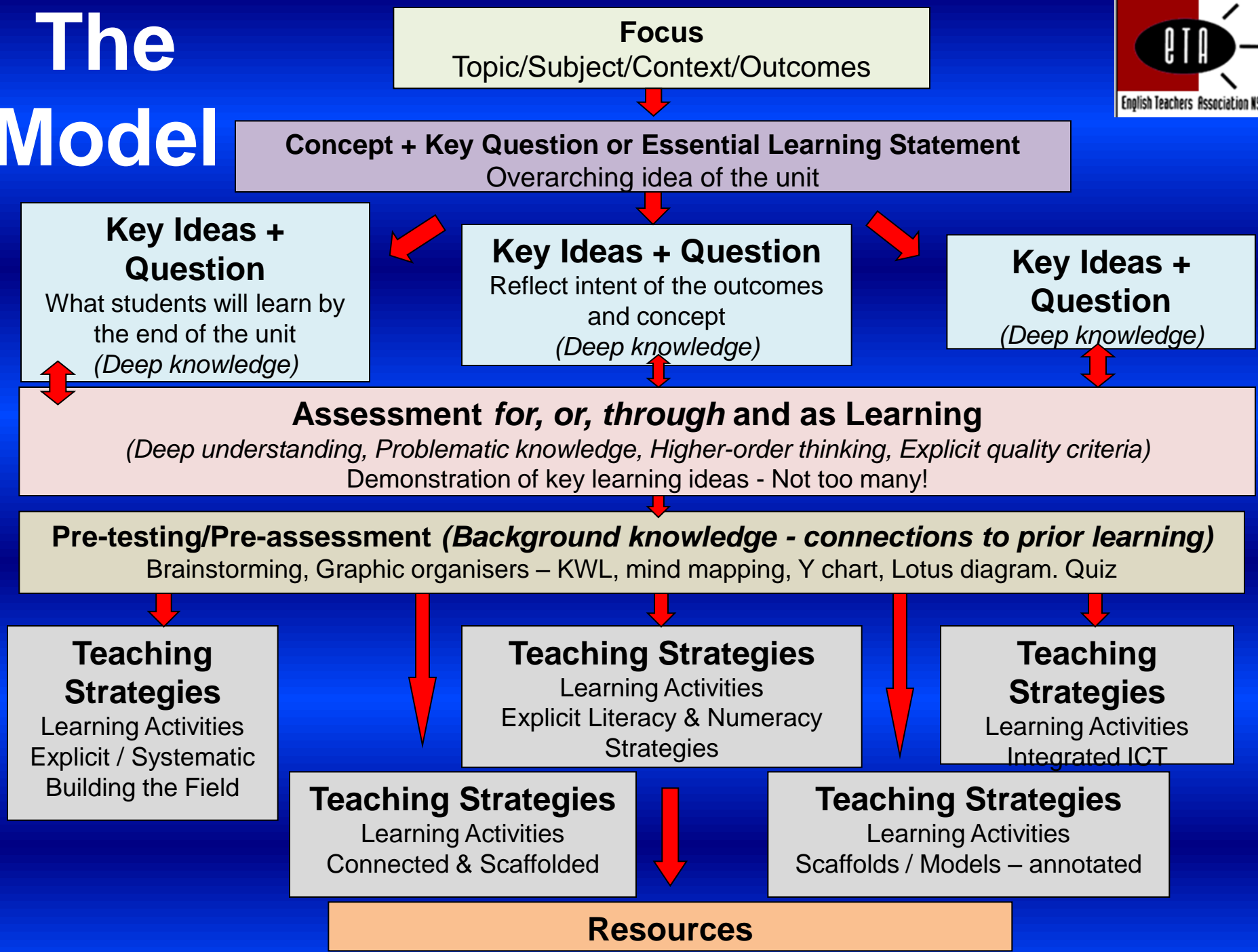
The Research

- AITSL (2011): Need for philosophical Inquiry: Why before the what and how.
 - Coyle and Colvin (1999): The brain is phenomenally plastic– *‘It’s not who you are, it’s what you do and where you do it.’*
 - Wiggins and McTighe (2006), Hattie (2003) & Dinham (2008): Correlation between quality assessment and improved learning outcomes.
 - Hattie (2003) & Dinham (2008): The significance of deep knowledge, direct instruction and scaffolding the learning.
 - Westwell (2009): Creativity flourishes when connected to what is already known.
 - NSW Quality Teaching model based on best practice and effective research
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- ❖ Shared vision and ethos
- ❖ Create a positive learning environment for creativity, critical thinking, problem – solving and risk-taking
- ❖ Conceptual programming: Build the field
- ❖ Interplay of quality assessment *for, of, as and through* learning
- ❖ Provide quality feedforward

Quality Teaching Model	Kaplan et al 2006	Maker	
<p>“Intellectual work that is challenging, centred on significant concepts and ideas, and requires substantial cognitive and academic engagement with deep knowledge”</p>	<p>Core: Curriculum addresses the core concepts, principles, and skills of a discipline</p>	<p>Content: Concepts & ideas that are complex and abstract</p>	
<p>Knowledge integration, Problematic knowledge, Higher-order thinking, Background knowledge, Substantive communication</p>	<p>Connections: connect overarching concepts, principles, and skills within and across disciplines, time periods, cultures, places, and/or events</p>	<p>Process: Higher-order thinking skills, self-directed learning</p>	
<p>Significance – Connectedness Problematic knowledge Deep understanding</p>	<p>Practice: The applications of facts, concepts, principles, skills, and methods in an authentic manner & context</p>	<p>Product: authentic tasks connected to the real world; evaluation; transformation; Synthesis</p>	
<p>Quality learning environment, Student direction</p>	<p>Identity: Developing students’ interests and expertise, strengths, values, and character</p>	<p>Learning environment: student centred</p>	

The Model



Quality Programming

“The first thing that teachers will need to do is select and organise the essential knowledge, understandings, skills and values from the syllabus around central concepts or ideas...”

Quality teaching in NSW Public Schools

Quality Programming

- Holistic and conceptual programming embedded in syllabus content, knowledge and skills focused on deep knowledge and deep understanding
- Distillation from syllabus to the concept to key learning ideas to assessment to explicit teaching and learning strategies
- Integrated assessment *of, for, through* and *as* learning – *backward mapping*
- Explicit teaching strategies informed by ongoing data
- Technology for learning

Planning for Learning

*“Without designing around
provocative questions and big ideas,
teaching easily succumbs into an
activity - or coverage - orientation
without clear priorities.”*

Understanding by Design

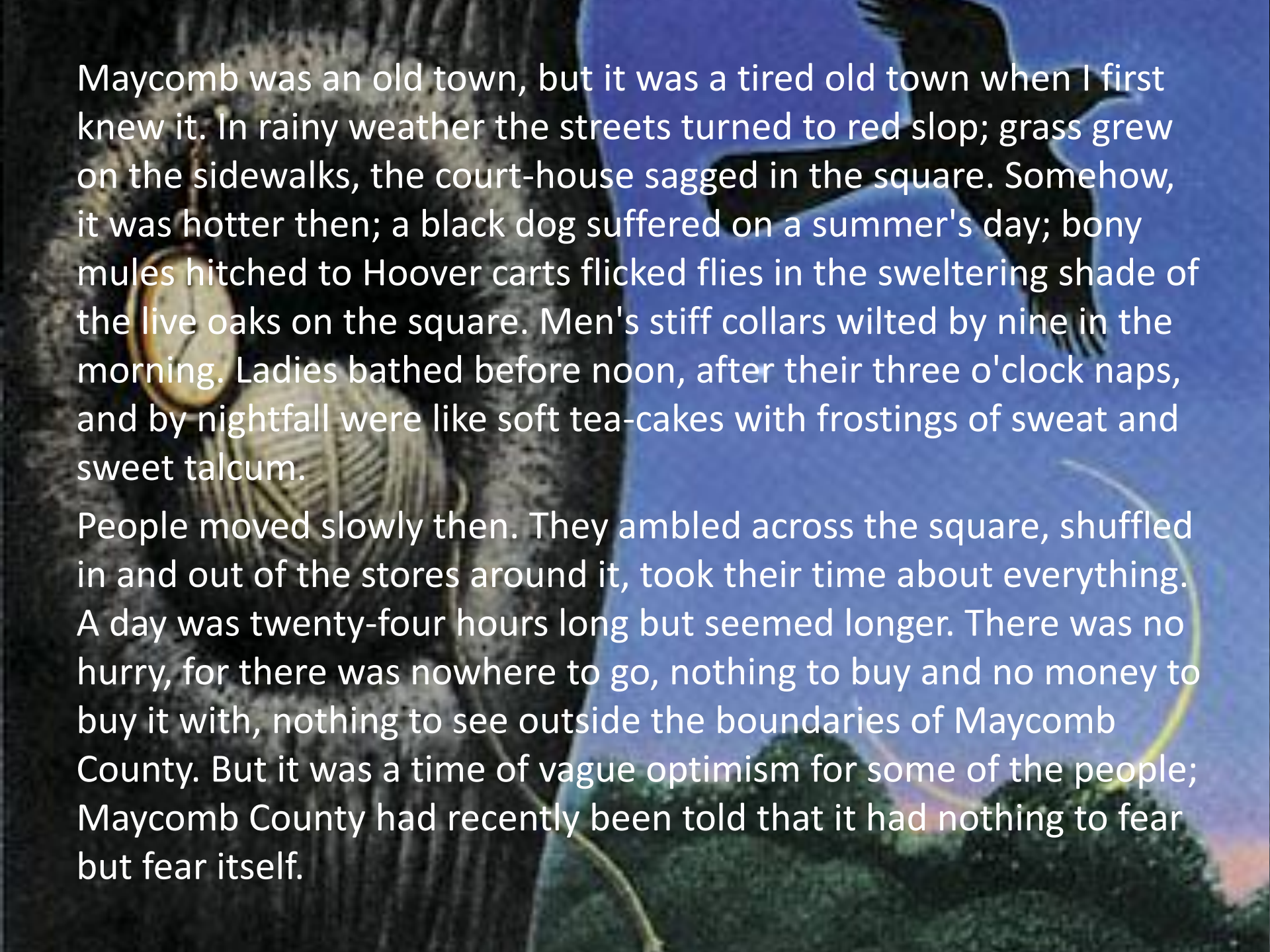
McTighe and Wiggins ASCD 1999

Focus on learning

- What do my students need to learn?
- Why does it matter?
- What do they already know?
- How will they demonstrate learning?
- How will they get there?
- How can they use technology to get there?
- How well do I expect them to do it?



Uncovering the Learning Conceptual Programming

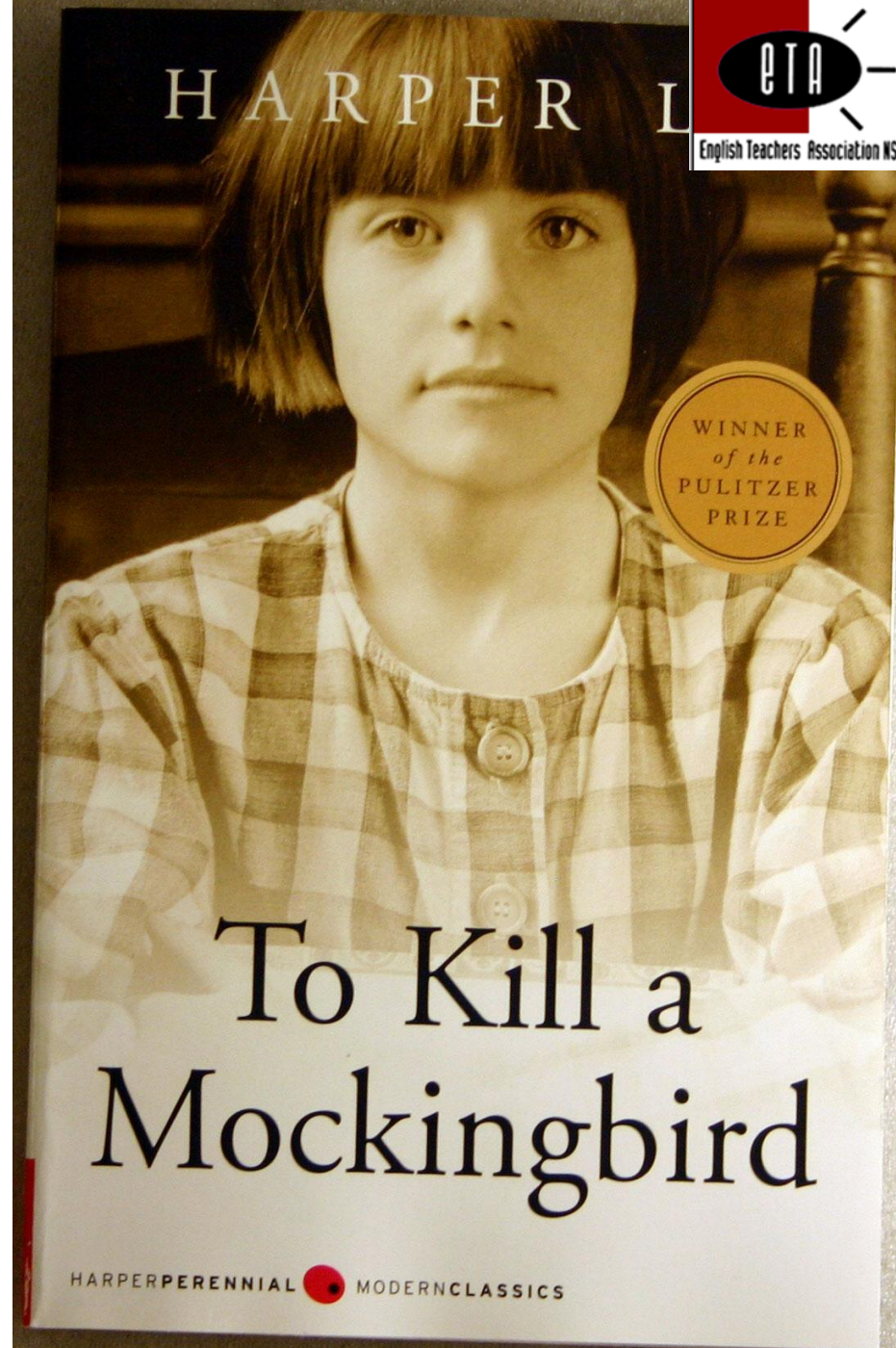


Maycomb was an old town, but it was a tired old town when I first knew it. In rainy weather the streets turned to red slop; grass grew on the sidewalks, the court-house sagged in the square. Somehow, it was hotter then; a black dog suffered on a summer's day; bony mules hitched to Hoover carts flicked flies in the sweltering shade of the live oaks on the square. Men's stiff collars wilted by nine in the morning. Ladies bathed before noon, after their three o'clock naps, and by nightfall were like soft tea-cakes with frostings of sweat and sweet talcum.

People moved slowly then. They ambled across the square, shuffled in and out of the stores around it, took their time about everything. A day was twenty-four hours long but seemed longer. There was no hurry, for there was nowhere to go, nothing to buy and no money to buy it with, nothing to see outside the boundaries of Maycomb County. But it was a time of vague optimism for some of the people; Maycomb County had recently been told that it had nothing to fear but fear itself.

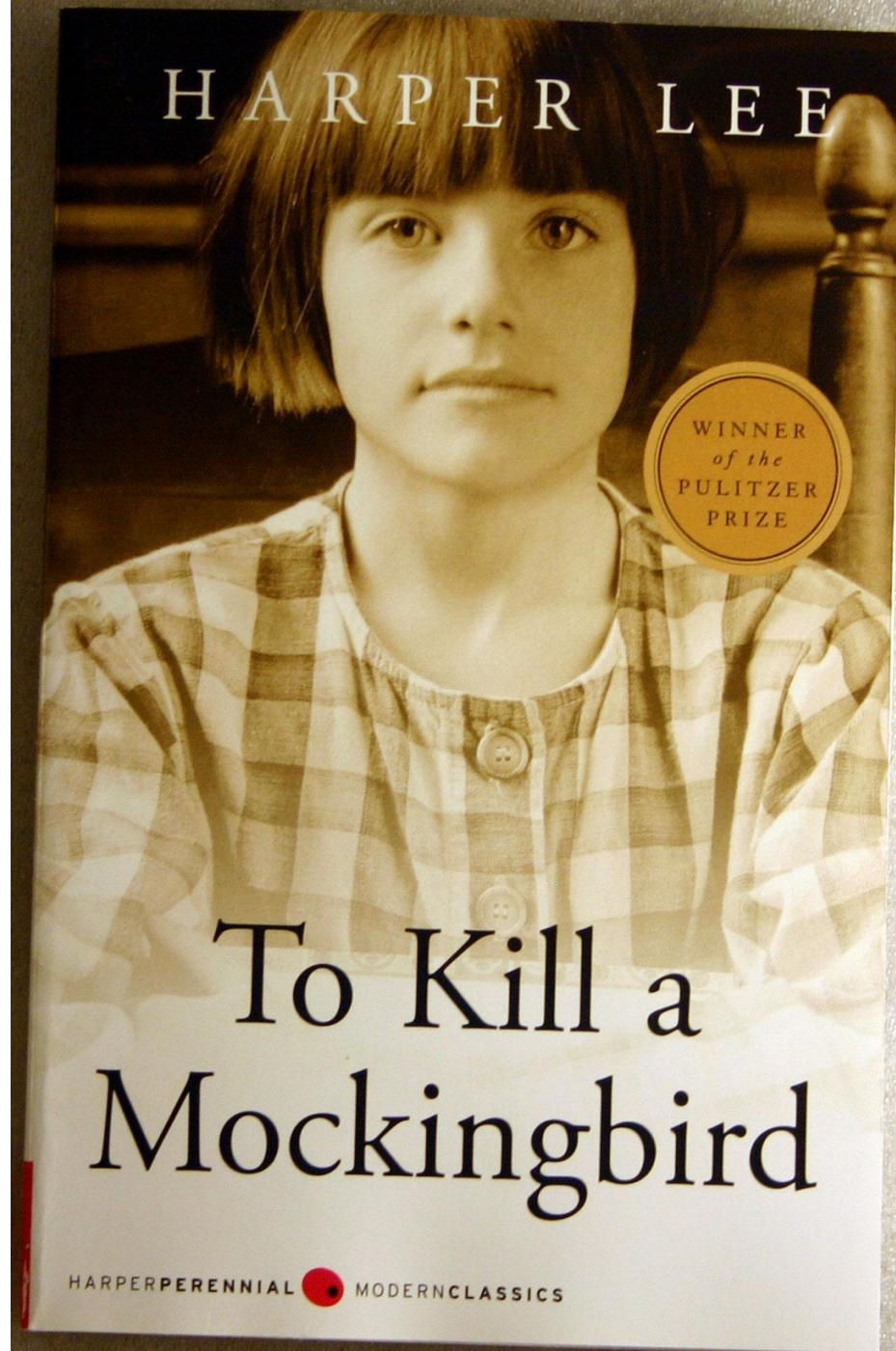
Uncovering the Learning

- *To Kill a Mockingbird*
- Why did it win the Pulitzer?
- Why do English faculties continue to have students study this novel?



Uncovering the Learning

- Narrative Voice
- Characterisation
- Contextualisation
- Representation of Prejudice across texts



The Approach

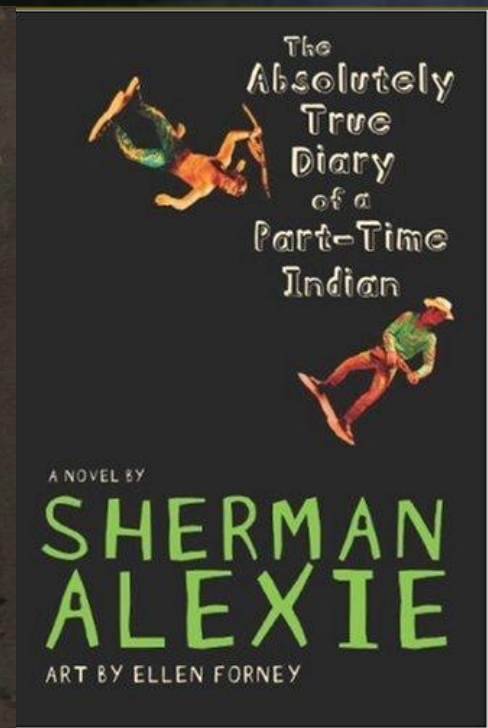
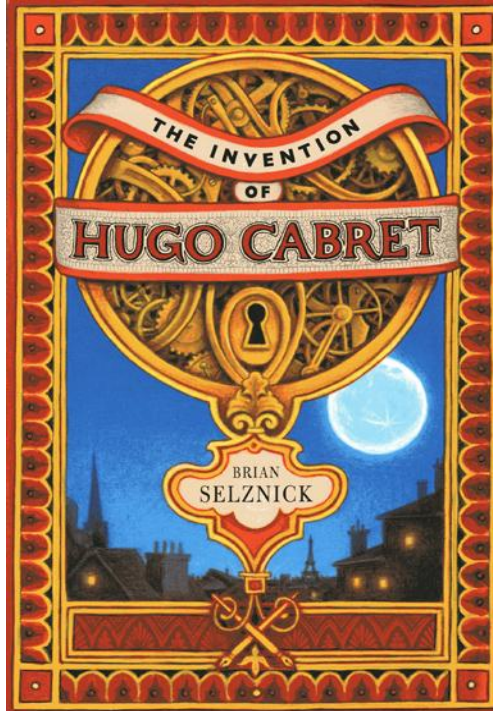
Focus on a unit of work you are teaching:

- What do you want the students to learn?
- Why does this matter?
- What concept or statement captures the learning?



The Topic/Focus

- Identify the topic or focus of the unit of work such as:
 - Poetry
 - Fiction
 - Close study of a novel
 - Cineliteracy
 - Shakespeare



The Learning

- Select and interrogate the content/outcomes that you wish to target
- Identify the essential learning goal or pose a question you want students to be able to answer by the end of the unit of work.
- Identify the concept/s that capture the learning – what are the students learning about?



Deep knowledge

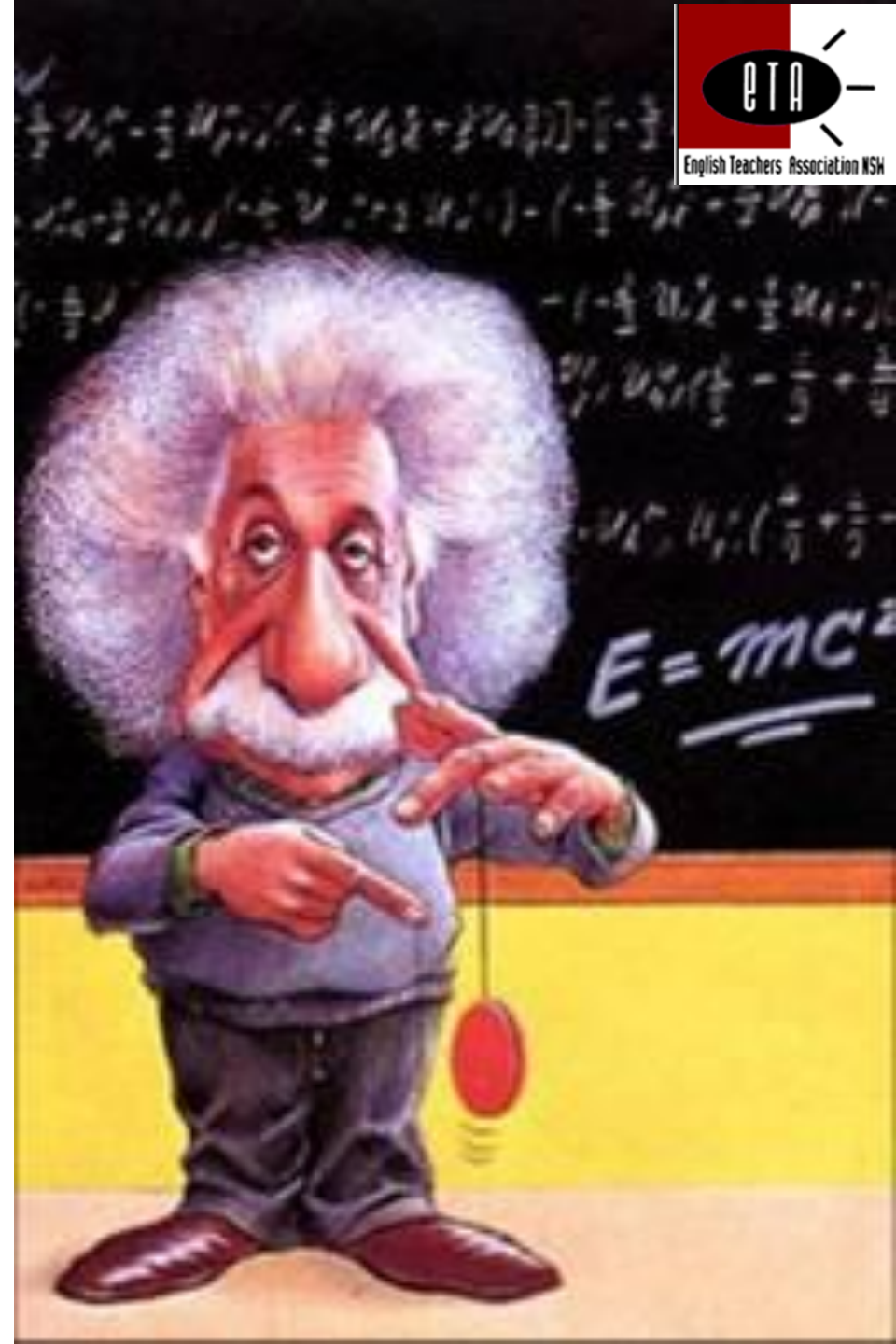
- Knowledge is deep when it concerns the central ideas or concepts of the KLA/s and when the knowledge is judged to be crucial to the topic or subject being taught.



The Design Approach

A Concept:

- A significant notion that reflects the core ideas of the content being taught and enables students to comprehend and create meaning



The Conceptual Approach

- Blend of abstraction and concreteness
- Grounded in the syllabus and reflects the continuum of learning.
- Has significance and endurance.
- Appropriate and relevant for the specified students at that moment in time.
- *“A concept is not an isolated, ossified, and changeless formation, but an active part of the intellectual process”*
Vygotsky.
- A concept is idea that has been turned, examined, polished and carries resiliency.
- A synthesis of the key ideas
- Represents depth rather than breadth

The overarching question or learning statement

- Pose an overarching key question or essential learning statement that encapsulates what students need to learn by the end of the unit
- Differentiates the learning



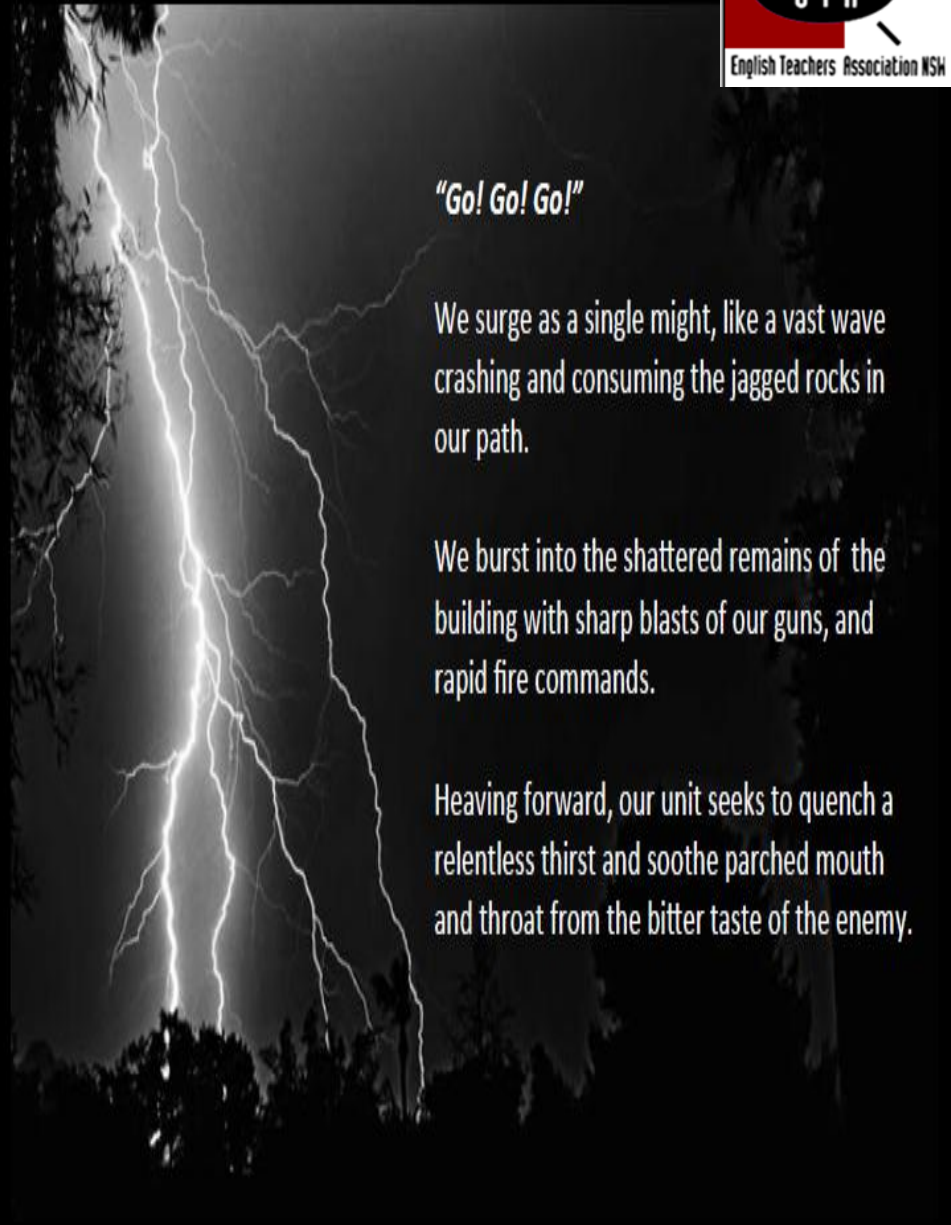
Cultural Perspectives

- **Stage 5 : Anime**
- **Concept:** Cultural Perspectives
- **Question:** How significant is cultural context in shaping our perspectives and our use of textual features?
- **Key Learning Ideas:**
 - How cultural context shapes perspectives and ideas in texts
 - How filmic techniques in anime convey cultural perspectives
- **Assessment Task:** Original text that reflects a cultural perspective.



Imagery

- **Essential Learning Goal:** Students to appreciate why and how imagery has been crafted in writing.
- **Overarching Question:** How and why do you enrich writing through imagery?



"Go! Go! Go!"

We surge as a single might, like a vast wave crashing and consuming the jagged rocks in our path.

We burst into the shattered remains of the building with sharp blasts of our guns, and rapid fire commands.

Heaving forward, our unit seeks to quench a relentless thirst and soothe parched mouth and throat from the bitter taste of the enemy.

Imagery

Key Learning Ideas:

- The power of language to create evocative images
- How writers craft and use imagery to convey meaning and provoke feelings
- How technology can be used to enhance the meaning of a text



English

- **Concept:** Persuasion
- **Question:** Why does “Everybody Needs a Little Controversy”?
- **Key Ideas**
 - How texts reflect and challenge their times
 - The power of language and music to persuade and position others
- **Assessment Task 1:** Original Poem or Song and Critical Reflection

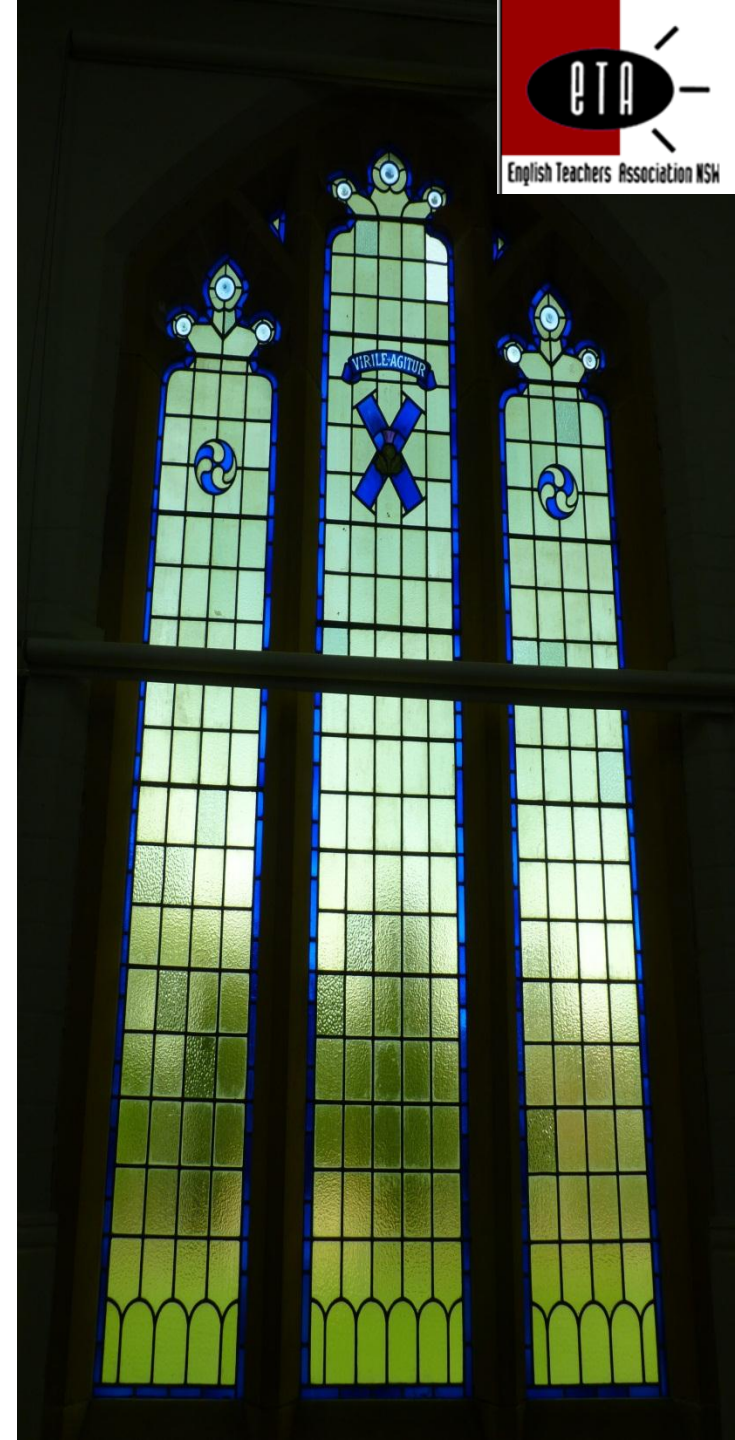


Persuasion

- **Outcomes NSW: 5, 7 & 9**
- **EN4-3B:** A student uses and describes language forms, features and structures of texts appropriate to a range of purposes, audiences and contexts.
 - Engage personally with texts: language and structures of texts; ideas and information in a range of texts
 - Develop and apply contextual knowledge: purpose, audience and context of texts; nominalisation in informative and persuasive texts; rhetorical devices used to persuade
 - Understand and apply knowledge of language forms and features: composing expositions and discussion essays; modality; structure of texts
 - Respond to and compose texts: how purpose shapes text structures and language features
- **4 EN4-4B:** A student makes effective language choices to creatively shape meaning with accuracy, clarity and coherence.
 - Engage personally with texts: communicate by using effective language choices
 - Develop and apply contextual knowledge: ways purpose, audience and context affect a composer's choices of content, language forms and features and structures
 - Understand and apply knowledge of language forms and features: experiment with text structures and language features; how point of view is generated in visual texts
 - Respond to and compose texts: create persuasive texts that raise issues and advance opinions; deliver presentations, selecting and sequencing appropriate content, including multimodal elements, to reflect a diversity of viewpoints
- **5 EN4-5C:** A student thinks imaginatively, creatively, interpretively and critically about information, ideas and arguments to respond to and compose texts.
 - **Engage personally with texts:** opinions and arguments about aspects of literary texts
 - **Develop and apply contextual knowledge:** how meaning is shaped by context, purpose, form, structure, style, content, language choices and personal perspective
 - **Understand and apply knowledge of language forms and features:** ways web and digital technologies influence language and shape meaning
 - **Respond to and compose texts:** considered points of view and arguments; ways experience, knowledge, values and perspectives can be represented through situations and concerns in texts; metalanguage

Perspectives

- **Concept:** Perspectives
- **Question:** How do the ways we perceive ourselves, others and the world influence the meaning of texts?
- **Key Ideas**
 - How our personal and cultural context shapes our perspective and how we respond to texts
 - How our perspective shapes the way we make language choices and create texts
 - The power and beauty of language to explore and express views of ourselves, others and the world
- **Assessment Task 1:** Original Poem and evaluation of the perspective and how it has influenced meaning



What do my students already know?

Connecting the learning to prior knowledge

What do they already know?

- Unless new knowledge becomes integrated with the learner's prior knowledge and understanding, this new knowledge remains isolated, cannot be used effectively in new tasks, and does not transfer readily to new situations.

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"I'm going to Grandma's house to show her how to check her e-mail again for the ten millionth time.
If you don't bite her, I will!"

What do they already know?

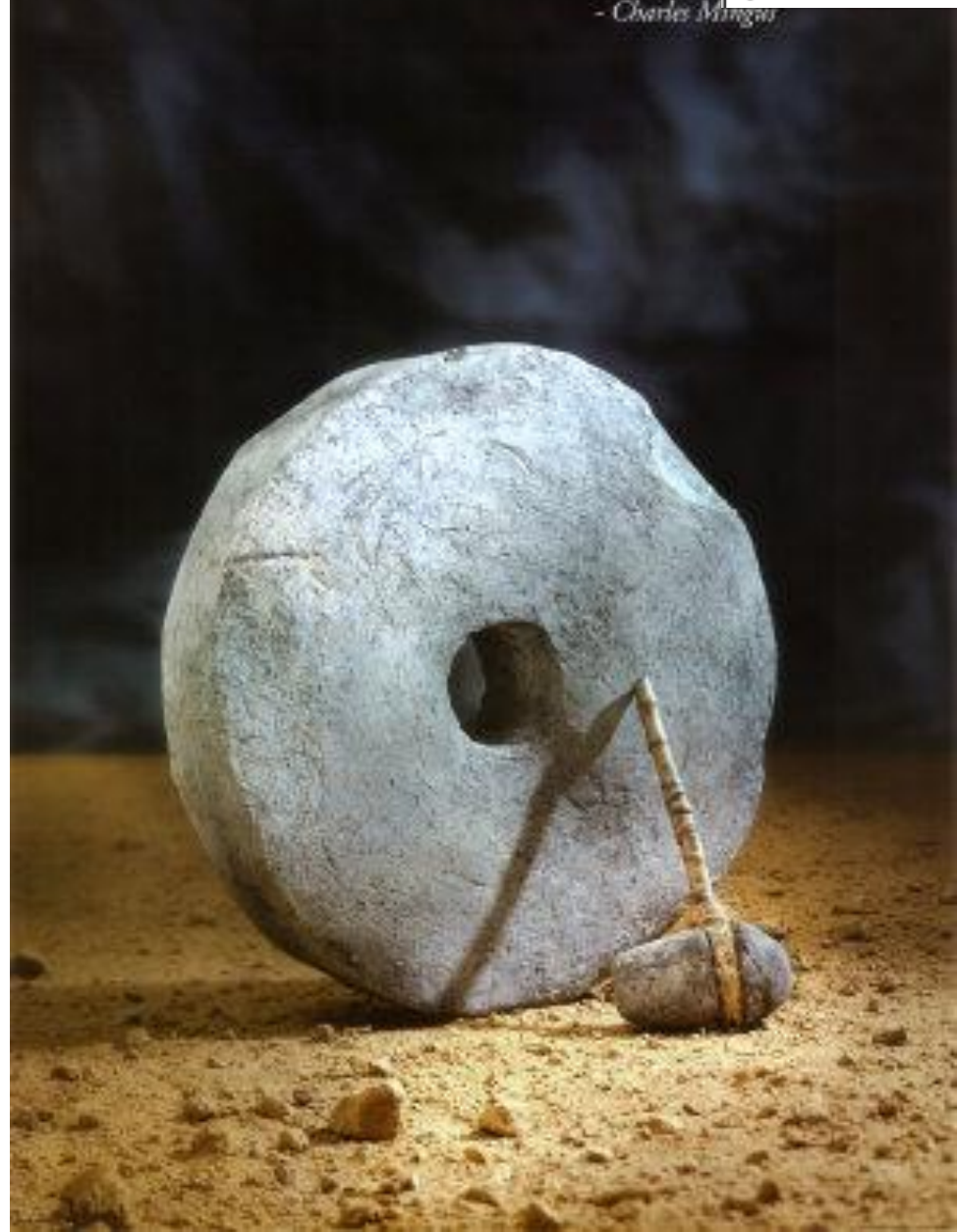
- **Pre-assessment – Data & Background knowledge:**
This can be informal but it is important as it informs teachers what the students know so that a unit of work or program can be differentiated to suit the learning needs of the students.
- Look at the end of stage performance descriptors in the syllabus for your unit!


"making the simple complicated is commonplace;
making the complicated simple, awesomely simple,
that's creativity."

- Charles Mingus

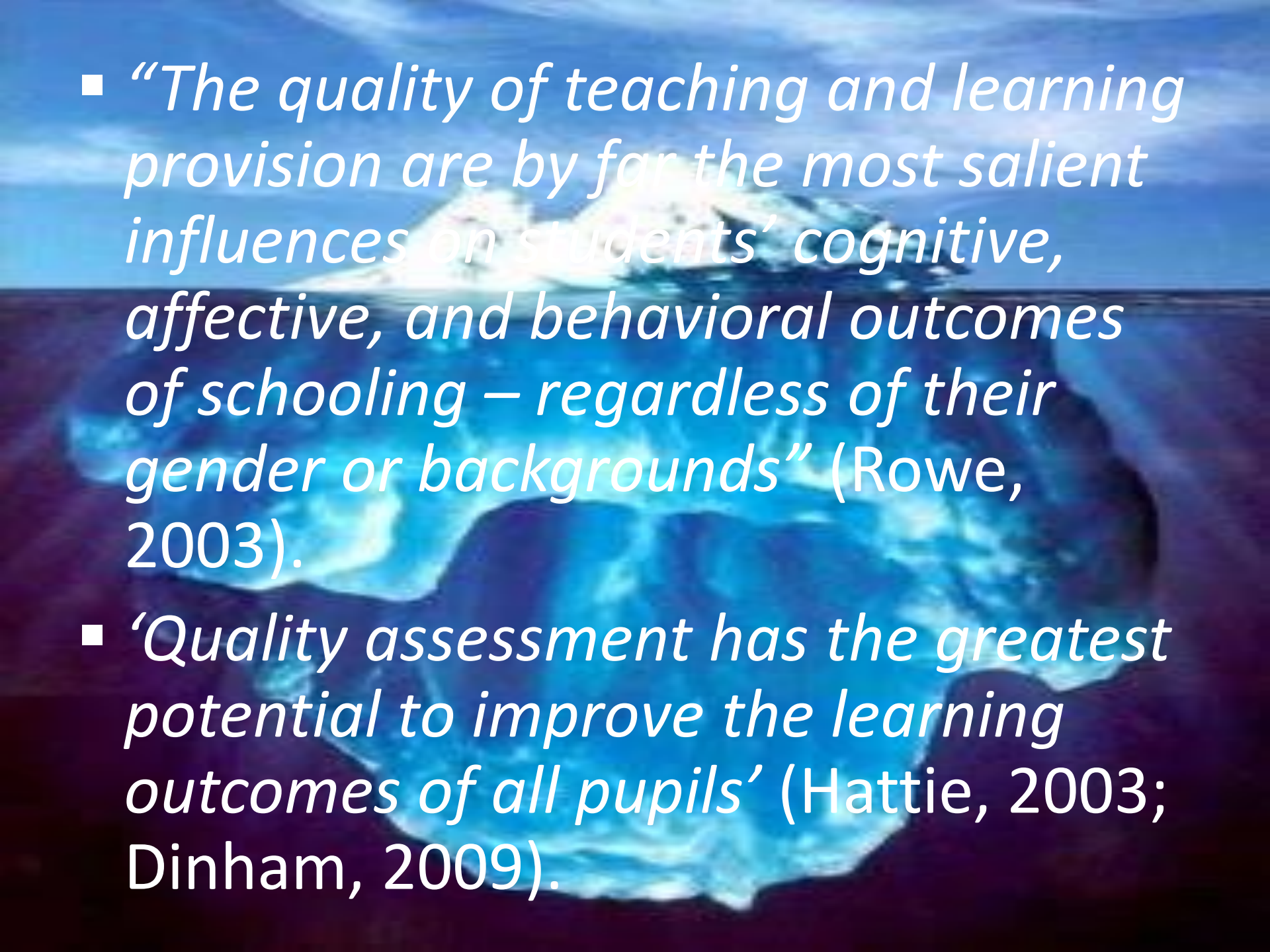


English Teachers Association NSW





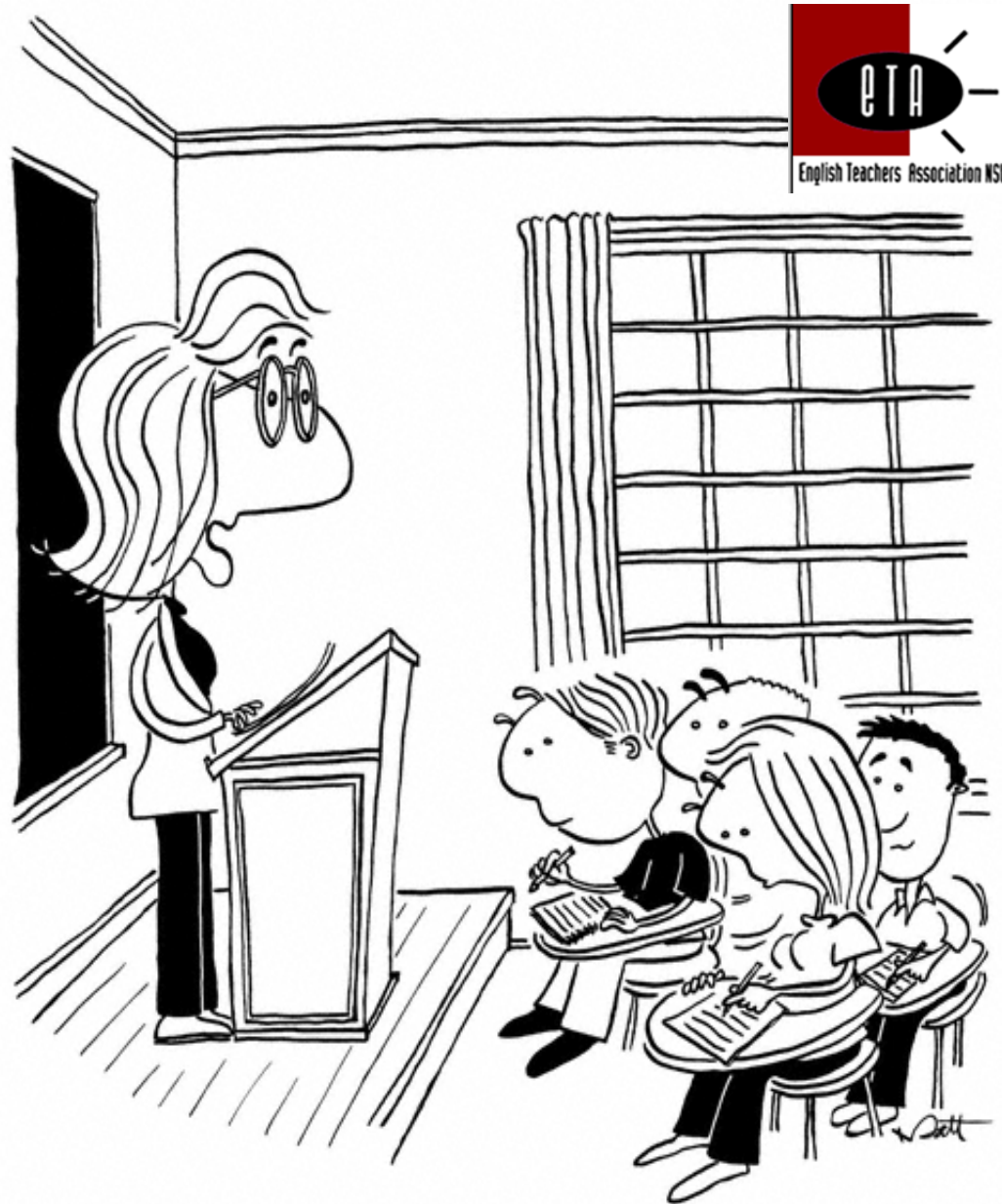
**How will they
demonstrate learning?
Quality Assessment**

- 
- The background of the slide features a serene sunset scene over a body of water. A large, white iceberg floats in the center, its surface reflecting the warm, golden light of the setting sun. The sky is a deep blue with wispy white clouds, and the water below is a dark, calm blue. The overall mood is peaceful and contemplative.
- *“The quality of teaching and learning provision are by far the most salient influences on students’ cognitive, affective, and behavioral outcomes of schooling – regardless of their gender or backgrounds” (Rowe, 2003).*
 - *‘Quality assessment has the greatest potential to improve the learning outcomes of all pupils’ (Hattie, 2003; Dinham, 2009).*

Assessment

What do I want the students to do or produce to demonstrate their learning and understanding?

Think of the unit you are planning, what task/s would you use?



"When writing your essays, I encourage you to think for yourselves while you express what I'd most agree with."

Quality Assessment

- All current research supports the potent impact of quality assessment and feedback on student learning outcomes.
- Our students need to become independent thinkers and learners; flexible and creative problem solvers; team players; resilient and committed citizens!



**CONCEPT/TOPIC
CONTENT/OUTCOMES**

```
graph TD; A[CONCEPT/TOPIC  
CONTENT/OUTCOMES] --> B[GOAL & KEY LEARNING IDEAS]; B --> C[PRECISION: DATA & PRE-ASSESSMENT  
Reveals critical differences among students.  
Guides teachers' decisions and planning]; C --> D[EFFECTIVE ASSESSMENT  
Formative --> Summative]; D --> E[PEER/SELF ASSESSMENT]; E --> F[QUALITY FEEDBACK];
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GOAL & KEY LEARNING IDEAS

PRECISION: DATA & PRE-ASSESSMENT

Reveals critical differences among students.
Guides teachers' decisions and planning

EFFECTIVE ASSESSMENT
Formative → Summative

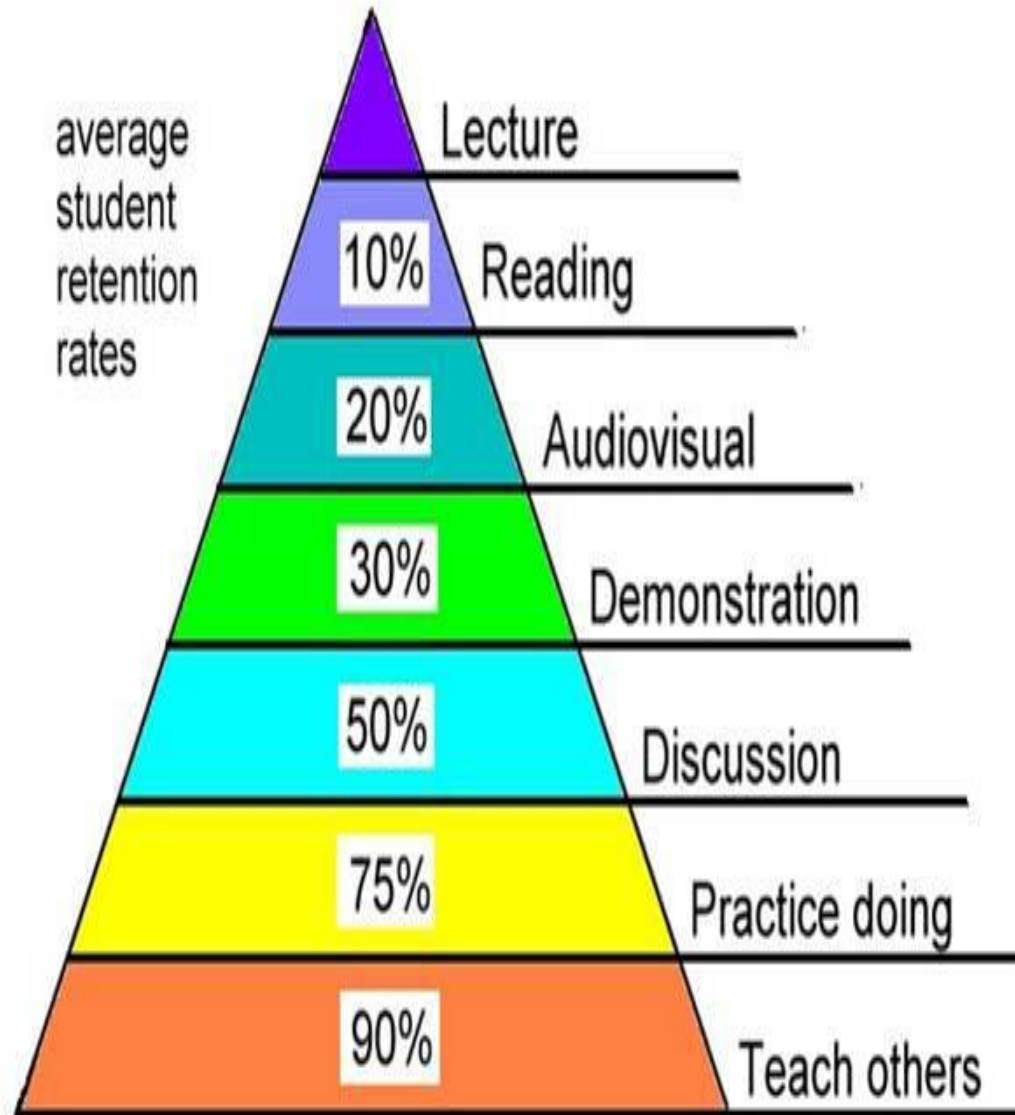
PEER/SELF ASSESSMENT

QUALITY FEEDBACK

Assessment for Deep understanding

- Key learning ideas
- Nature of the task in a clear and precise rubric
- The verbs!
- Explicit quality criteria
- Marking guidelines reflecting the content/outcomes being assessed

Learning Pyramid



Source: National Training Laboratories, Bethel, Maine

Assessment *for* learning

1. Clarifying, understanding and sharing intentions
2. Engineering effective classroom discussions, tasks and activities that elicit evidence of learning
3. Providing feedback that moves learners forward
4. Activating students as learning resources for one another
5. Activating students as owners of their own learning.

Metacognition

- **Assessment *as* learning** is about reflecting on evidence of learning. Students and teachers set learning goals, share learning intentions and success criteria, and evaluate their learning through dialogue and self and peer assessment.



Risk Taking

- Personalisation and differentiation
- Moving towards student directed and open ended
- Students to design own task
- A wide range of choices – even a free choice negotiated with the teacher



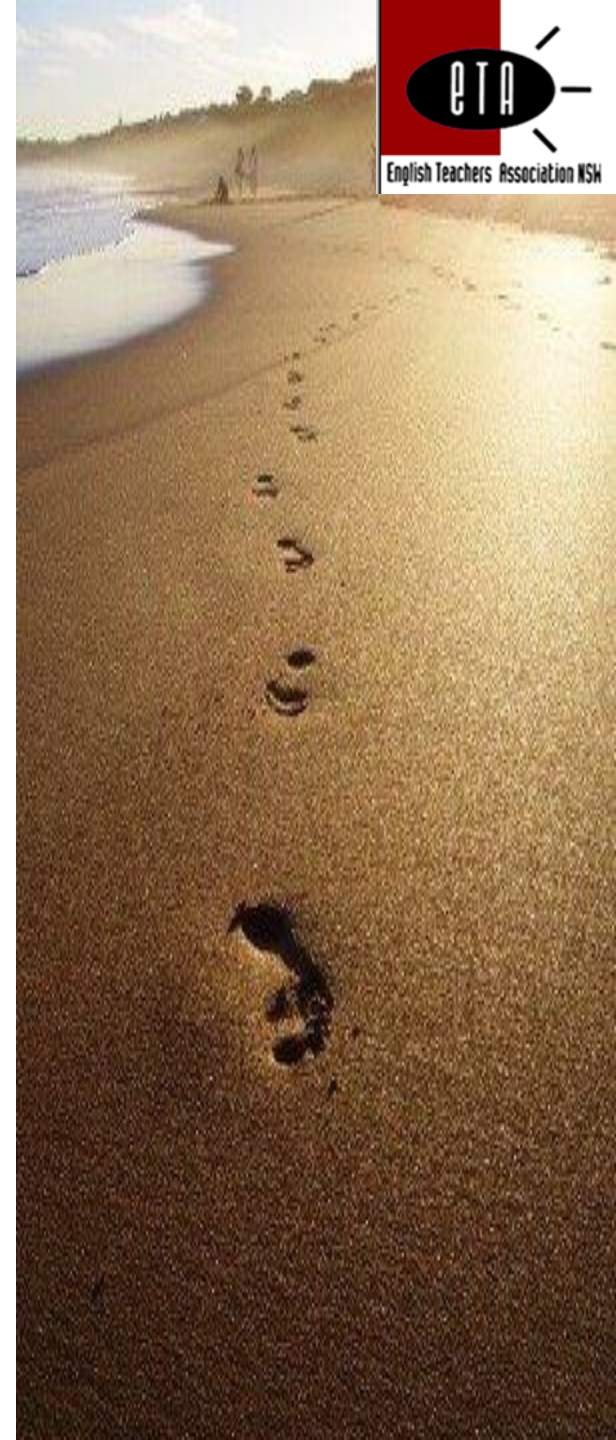
Peer Assessment

- *“When students are more active participants in the whole process, then feedback is likely to be most useful to students’ learning” (Hattie & Timperley, 2007).*
- *“When students get to see other students’ work it deepens understanding of the learning goals” (Nicol, 2008)*



Journey to Self & Peer assessment

- Edmodo: <http://edmodo.com>
- Google Docs: <http://google.com/educators/tools.html>
- Invite diagnostic peer and self assessment by using a rubric and marking scheme that has been clearly explained to the students.
- Pairing and sharing
- Require students to design the marking criteria.
- Blogs and wikis



A red apple is shown with several slices of its flesh arranged in a star-like pattern on top of it. The apple is positioned in the center-left of the frame. The slices are cut from the apple, showing the white flesh and some of the red skin. The background is a solid, light purple color.

How will they get there?

The Art of Teaching

How will they get there?

- Now plan how you support your students to uncover the learning
- Build the learning!
- Explicit strategies?
- Use of technology?
- Pedagogical approach?
- Resources?
- Aim for depth!
- Learning is recursive!

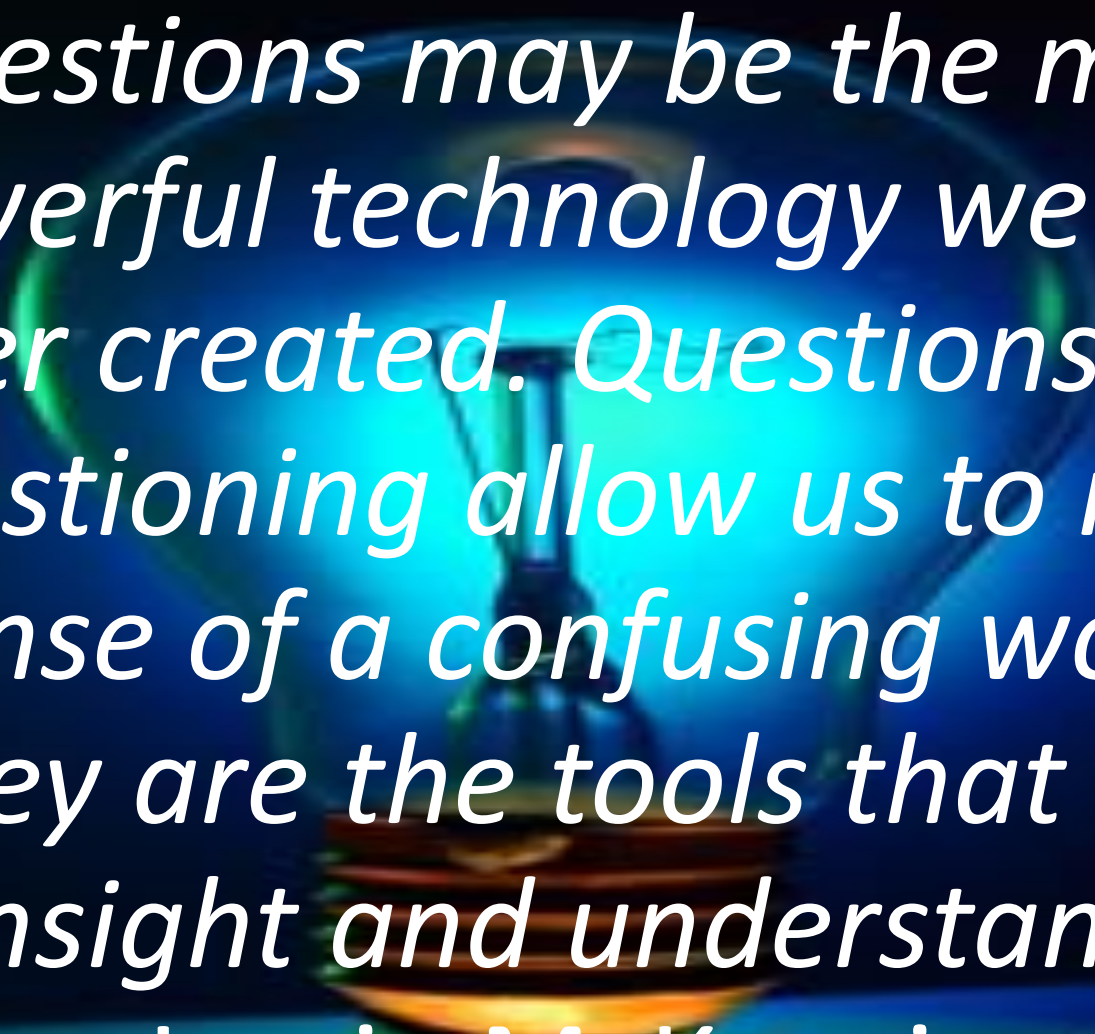


Literacy

- What explicit literacy skills do they need to acquire the essential learning?
- Reading and comprehension: literal and inferential questions
- Writing
- Speaking
- Listening
- Viewing
- ICT literacy
- Visual literacy

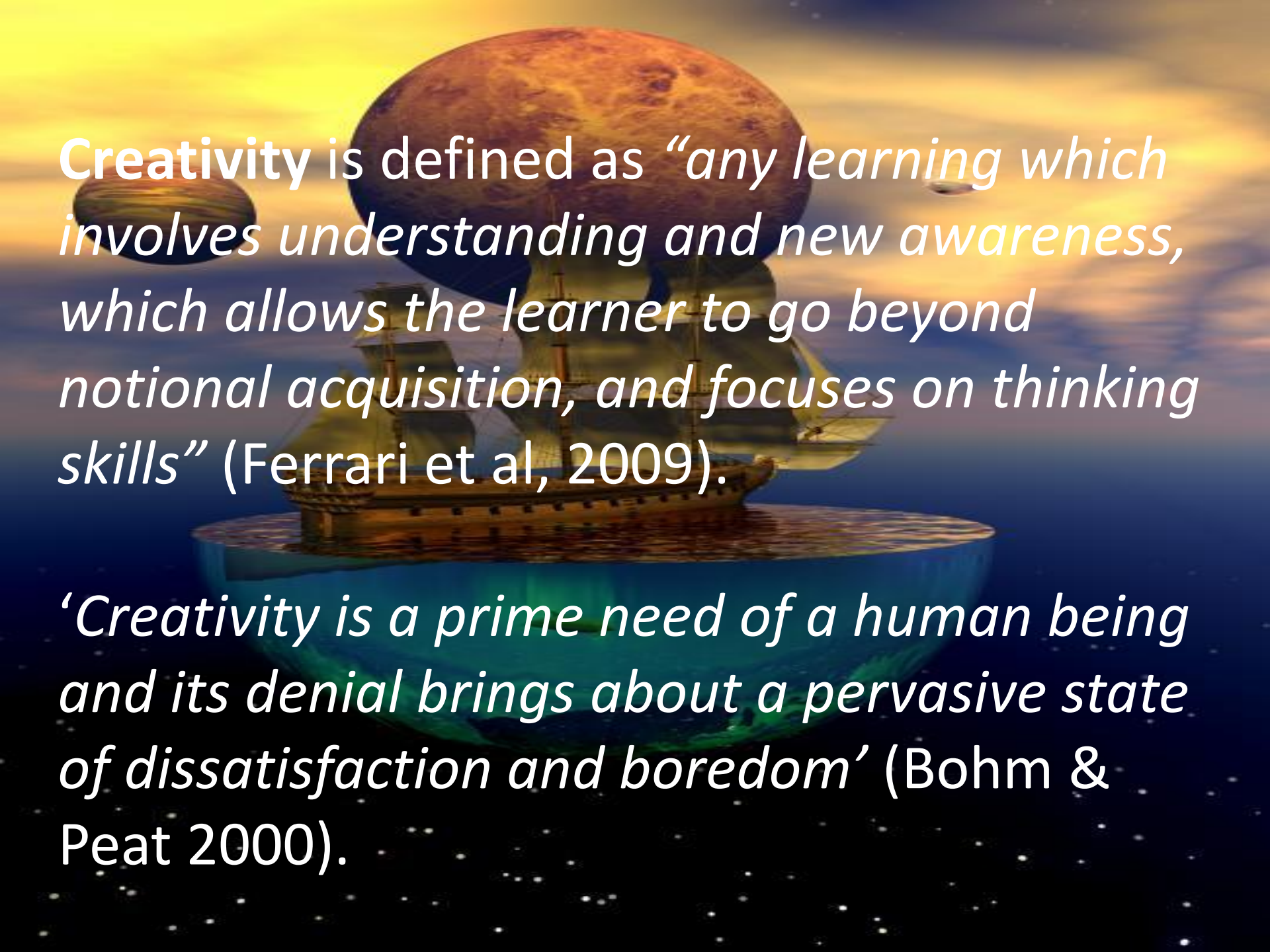


"I'm lousy at spelling because of my parents. They grew up listening to the Beatles, Monkees and Byrds!"



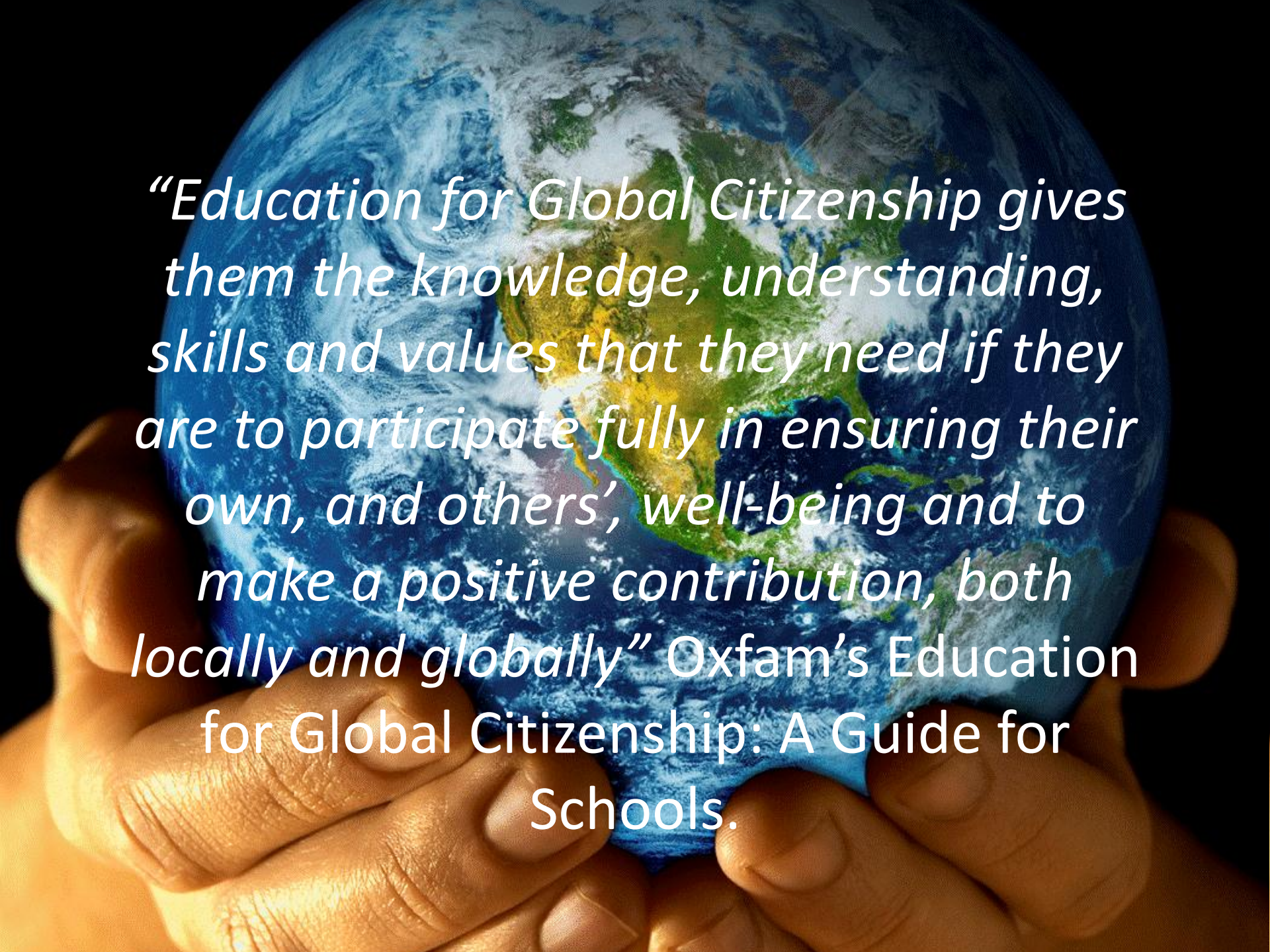
'Questions may be the most powerful technology we have ever created. Questions and questioning allow us to make sense of a confusing world. They are the tools that lead to insight and understanding'

Jamie McKenzie.



Creativity is defined as “any learning which involves understanding and new awareness, which allows the learner to go beyond notional acquisition, and focuses on thinking skills” (Ferrari et al, 2009).

‘Creativity is a prime need of a human being and its denial brings about a pervasive state of dissatisfaction and boredom’ (Bohm & Peat 2000).

A pair of hands, one from a darker-skinned person and one from a lighter-skinned person, are gently cupping a small, realistic globe of the Earth. The globe shows the Americas, with green landmasses and blue oceans, and is partially covered by white, swirling clouds. The background is dark, making the hands and the globe stand out. The text is overlaid on the globe in a white, italicized serif font.

“Education for Global Citizenship gives them the knowledge, understanding, skills and values that they need if they are to participate fully in ensuring their own, and others’, well-being and to make a positive contribution, both locally and globally” Oxfam’s Education for Global Citizenship: A Guide for Schools.



Global Projects

- <http://www.virtualclassroom.org/index.html> - competition
- <http://www.epals.com/projects/info.aspx?DivID=index> E.g. digital storytelling and global warming
- Flat Classrooms - <http://www.flatclassroomproject.org/>
- iLearn: <http://media.iearn.org/home>
- **Global School Net: Cyberfair and Doors to Diplomacy:** <http://www.globalschoolnet.org/>
- Skype in the Classroom <http://education.skype.com/>

*“Teachers should not drive
students in a tourist bus
through the **school**
curriculum, encouraging the
bland recital of tourist blurbs.
Students should be obliged to
savour the rich texture of
life...” Garth Boomer.*

<http://unswi>
[ct.wikispace](http://unswi)
[s.com/](http://unswi)

